



RECEIVED  
NOV 19 2003  
TECH CENTER 1600/2900

FIGURE 1A

SEQ ID NO:39	MVYHVRPKHAL-----FLAFYCYFS-----	60
SEQ ID NO:40	MKATLAAPSSLTSL-P-----YRTNSS-FGSKSLLFRSPSSSSVS-MTTTRGNV	
SEQ ID NO:38	MAN-----SXRPA-PLTPLHRLDAAPPRLGHAARPVPRVLPVLLPAR-XLRAPDGV	
SEQ ID NO:28	MATVURI-----PTISCIHIHIFRSQSPRTFARIRVGPRSWAPIRASA-ASSERGEI	
SEQ ID NO:08	MATVURI-----PTISCIHIHIFRSQSPRTFARIRVGPRSWAPIRASA-ASSERGEI	
SEQ ID NO:22	MAHAALLHCSQSSR-SLAACRRGSHYRAPH-VPRHSRRLRRVAVSL---R-PMASSTA-	
SEQ ID NO:24	AR--VQPTGALAPLHPLLRCTSRHLCASASPRAGLCLHHHRRRRSSRRTKLAVRAMAPT	
SEQ ID NO:26	FRH-----GH-----AL-----	
	1	
SEQ ID NO:39	LLTMAATIASADLYEKIKNFYDDSSGLWEDVWGEHMHGYYGPHGTYRI---DRRQAQI	
SEQ ID NO:40	AVAAAAATSTEA--LRKGIAEFYNETSGLWEEIWGDHMHGIFYDPDSSVQLSDSGHKEAQI	
SEQ ID NO:38	VDRGPGDAAPPGLKEGIAGLYDESSGLWESIWGEHMHGIFYDSGEAASMSD--HRRRAQI	
SEQ ID NO:28	VLEQPKKKDDKKLQKGIAEFYDESSGLWENIWGDHMHGIFYDSDTVSLSD--HRAAQI	
SEQ ID NO:08	VLEQPKKKDDKKLQKGIAEFYDESSGLWENIWGDHMHGIFYDSDTVSLSD--HRAAQI	
SEQ ID NO:22	----QAPATAPPGLKEGIAGLYDESSGLWENIWGDHMHGIFYDSSEAAASMD--HRRRAQI	
SEQ ID NO:24	LSSSSTAAPGLKEGIAGLYDESSGVWESIWGEHMHGIFYDAGEAASMSD--HRRRAQI	
SEQ ID NO:26	-----	
	61	
SEQ ID NO:39	DLIKELLAWAVPQNSA---KPRKILDGCGIGGSSLYLAQQHQAEVMGASLSPVQVERA	120
SEQ ID NO:40	RMIEESLRFAGVTDEEE-EKKIKKVVDVCGGIGGSSRYLASKFGAECIGITLSPVQAKRA	
SEQ ID NO:38	RMIEEALAFAAVP--DDPTNKPCTIVDVCGGIGGSSRYLANKYGAQCSGITLSPVQAERG	
SEQ ID NO:28	RMIEESLRFASV--SEERSKWPKSIVDVCGGIGGSSRYLAKKFGATSVGITLSPVQAQRA	
SEQ ID NO:08	RMIEESLRFASV--SEERSKWPKSIVDVCGGIGGSSRYLAKKFGATSVGITLSPVQAQRA	
SEQ ID NO:22	RMIEEALAFAGVPASDDPEKTPKTIIVDVCGGIGGSSRYLAKKYGXQCTGITLSPVQAERG	
SEQ ID NO:24	RMIEESLAF-----	
SEQ ID NO:26	-----	
	121	
	180	



RECEIVED  
NOV 19 2003  
TECH CENTER 1600/2900

FIGURE 1B

SEQ ID NO: 39	GERARALGLGSTCQFQVANALDLPFASDSFDWVWSLESGEHMPNKAQFLQEAWRVLKPGG	
SEQ ID NO: 40	NDLAAAQSLSHKASFQVADALDQPFEDGKFDLVWSMESGEHMPDKAKFVKELVRVAAPGG	
SEQ ID NO: 38	NALAAAQGLSDKASFQVADALEQFPDQGFQDLVWSMESGEHMPNKKFVSELARVAAPGA	
SEQ ID NO: 28	NALAAAQGLADKVSFQVADALQPFSDGQFQDLVWSMESGEHMPDKAKFVSELARVAAPGA	
SEQ ID NO: 08	NALAAAQGLADKVSFQVADALQPFSDGQFQDLVWSMESGEHMPDKAKFVSELARVAAPGA	
SEQ ID NO: 22	NALAAAQGLSDQVTIQVADALEQFPDQGFQDLVWSMESGEHMPDKRKFVSELARVAAPGG	
SEQ ID NO: 24	-----	
SEQ ID NO: 26	-----AQFPDQGFQDLVWSMESDEHMPDKRQFVSELARVAAPGA	240
		181
SEQ ID NO: 39	RLILATWCHRPIDPGNGPLTADERRHLQAIYDVVCLPYVVSPLPDYEALARECGFGEIKTA	
SEQ ID NO: 40	RIIIVTWCHRNLSAGEEALQPWEQNILDKICTFYLPAWCSTDDYVNLQSHSLQDIKCA	
SEQ ID NO: 38	TIIIVTWCHRNLPSEDSLPKDELNLLKKICDAYYLPDWCSPSDYVVKIAESLSLEDIKTA	
SEQ ID NO: 28	IIIIVTWCHRDLPDEQSLHPWEQDLLKKICDAYYLPAWCSTSDYVVKLLQSLSLQDIKSE	
SEQ ID NO: 08	IIIIVTWCHRDLPDEQSLHPWEQDLLKKICDAYYLPAWCSTSDYVVKLLQSLSLQDIKSE	
SEQ ID NO: 22	TIIIVTWCHRNLPSETSLKPDELSLLRRICDAYYLPDWCSPSDYVVKIAESLSLEDIKTA	
SEQ ID NO: 24	-----	
SEQ ID NO: 26	RIIIVTWCHRNLEPSEESLPKDELNLLKKICDAYYLPDWCSPSDYVVKIAESLSLEDIRTA	300
		241
SEQ ID NO: 39	DWSVAVAPFWDRIEAFDPRVLWALGQAGPKIINAAALCLRLMKWYERGLVRFGLLTGI	
SEQ ID NO: 40	DWSENVAPFPWPAVIRALTWKGLVSLLRSGMKSIKALTMPMLMIEGYKKGVIKFGIITCQ	
SEQ ID NO: 38	DWSENVAPFPWPAVIRQSAITWKGLTSLLRSGWKTIKALVMPMLMIQGYKKGLIKFSIITCR	
SEQ ID NO: 28	DWSRFVAPFPWPAVIRSAFTWKGLSLLSSGQTKIKALAMPLMIEGYKKDLIKFAIITCR	
SEQ ID NO: 08	DWSRFVAPFPWPAVIRSAFTWKGLSLLSSGKLGI-----YIAFQKQTPPSSIATCK	
SEQ ID NO: 22	DWSENVAPFPWPAVIRKSAITWKGLTSLTTGWKTIRGAMVMPLMIQGYKKGLIKFTIITCR	
SEQ ID NO: 24	-----	
SEQ ID NO: 26	DWSENVAPFPWPAVIRKSAITWKGLTSLLRSGWETVRGAMVMPLVIEGYKKGLIKFPPIITCR	360
		301



Title: Plant Vitamin E Biosynthetic Enzymes  
Inventor: Rebecca E. Cahoon et al.  
Application: 09/857,613  
Docket: BB-1289  
REPLACEMENT DRAWING SHEET

RECEIVED  
NOV 19 2003  
TECH CENTER 1600/2900

FIGURE 1C

SEQ ID NO:39	KPLV-----	361	380
SEQ ID NO:40	KPL-----		
SEQ ID NO:38	KPQAAIEGEPEAAPSVE.-		
SEQ ID NO:28	K-----PE.-		
SEQ ID NO:08	SYVTDHYFTR.-		
SEQ ID NO:22	KPGAA-.MA-----HAALLHC		
SEQ ID NO:24	-----		
SEQ ID NO:26	KPETT-----Q.-		



RECEIVED  
NOV 19 2003  
RECEIVED 1600/2900

FIGURE 2A

SEQ ID NO: 41	MPPTPTTAAATGAAAAVTPEHARPH-----RMVRFNPRSDRFHTLSFHHVEFWCADAASA	60
SEQ ID NO: 43	MGHQNAAVSENONHDDGAASSPGFKLVGFSKFKVRKNPKSDKFKVKRFHHIEFWCGDATNV	
SEQ ID NO: 42	MGKKQSEAEILSS-NSSNTSPATFKLVGFNNFVRANPKSDHFAVKRFHHIEFWCGDATNT	
SEQ ID NO: 36	MPIPMCNEIQQA-QAQAQAQPGFKLVGFKNFVRTNPKSDRFQVNRFFHHIEFWCTDATNA	
SEQ ID NO: 38	MPPTPTTAAATGAAA-VTPEHARPR-----RMVRFNPRSDRFHTLAFHHVEFWCADAASA	
SEQ ID NO: 32	MGK-QTTTSATAA-DGSKDAHAEEFKLVGFKNFVRTNPKSDHFCVHRFFHHIEFWCGDATNT	1
SEQ ID NO: 41	AGRFAFALGAPLAARSDLSTGNSAHASQLLRSGSLAFLFTAPYANG-----CDAATASL	61
SEQ ID NO: 43	ARRFSWGLGMRFSAKSDLSTGNMVHASLYLLTSGDLRFLFTAPYSPSLSAGEIKPTTTASI	
SEQ ID NO: 42	SRRFSWGLGMPPLVAKSDLSTGNSVHASLYLRSANLSFVFTAPYSPSTTTSS-G---SAAI	
SEQ ID NO: 36	SRRFSWGLGMPPIVAKSDLSTGNQIHASLYLLRSGDLSFLFSAPYSPSLSAGS-SAASSASI	
SEQ ID NO: 38	AGRFAFALGAPLAARSDLSTGNSVHASQLLRSGNLAFLLFTAPYANG-----CDAATASL	
SEQ ID NO: 32	AKRFSWGLGMPPLVAKSDLSTGNSAHASLYLLRSGELNFLTSPYSPSISAPS-----SAAI	120
SEQ ID NO: 41	PSFSADAARRFSADHGI AVR SVALRVADAAEA FRASRRRGARPAFAPVDLGRGFA-FAEV	
SEQ ID NO: 43	PSFDHGSCRSFFSSHGLGVRAVAIEVEDAESAFSISVANGAIPSSPPIVLNEAVT-IAEV	
SEQ ID NO: 42	PSFSASGFHSHFAAKHGLAVRAIALEADVAAAFAEASVARGARPAAPVEL-DDQAWLAEV	
SEQ ID NO: 36	PSFDAATCLAFAAKHGFGVRAIALEVADAAEAFSAVAKGAEPASPPV-LVDDRRTGFAEV	
SEQ ID NO: 38	PSFSADAARQFSADHGLAVRSIALRVADAAEA FRASVDGGARPAFSPVDLGRGFG-FAEV	
SEQ ID NO: 32	PSFSFSTYQSFTSSHGLAVRAVAIQVDSAFSAYSASISRGAKPVSAPIILLSDNKTAIAEV	121
		180



RECEIVED  
Nov 19 2003  
TECH CENTER 1600/2900

FIGURE 2B

SEQ ID NO: 41	ELYGDVWVLRVFSH-PDGTDP-----FLPGFEGVTNPDA---VDYGLTRFDHVVGNV	240
SEQ ID NO: 43	KLYGDVWVLRVVS YKAEDTEKSE-----FLPGFERVEDASSFP-LDYGIRRLDHA VGNVP	
SEQ ID NO: 42	ELYGDVWVLRVVSFGRE-----EGLFLPGFEAVEGTASFDDLDY GIRRLDHA VGNVT	
SEQ ID NO: 36	RLYGDVWVLRVVS YKDAAPQAPHADPSRWFLPGFEAAA SSSFPPELDY GIRRLDHA VGNVP	
SEQ ID NO: 38	ELYGDVWVLRVFSH-PDGRDVP-----FLPGFEGVSNPDA---VDYGLTRFDHVVGNV	
SEQ ID NO: 32	HLYGDSVLRVFSYGDNG-----TGPDGWFLPGFEPVDDQMSYKELDY GIRRLDHA VGNVP	241
SEQ ID NO: 41	ELAPAAA YIAGFTGFHFEFAEFTAEDVGTTESGLNSVVLANNSEGVLLPLNEPVHGTKRRS	
SEQ ID NO: 43	ELGPALTYVAGFTGFHQFAEFTADDVGTAEGLNSAVLASNDEMVL L PINEPVHGTKRKS	
SEQ ID NO: 42	ELGPVVEYIKGFTGFHFEFAEFTAEDVGTLESGLNSVVLANN EEMVLLPLNEPVYGTKRKS	
SEQ ID NO: 36	ELAPAVRYLKGFSGFHFEFAEFTAEDVGTSESGLNSVVLANNSETVLLPLNEPVYGTKRKS	
SEQ ID NO: 38	ELAPAAA YVAGFTGFHFEFAEFTTEDVGTAEGLNSMVLANNSEGVLLPLNEPVHGTKRRS	
SEQ ID NO: 32	ELGPVVDYLKKFTGFHFEFAEFTSEDVGTAEGLNSMVLANNENNVLLPLNEPVFGTKRKS	300
SEQ ID NO: 41	QIQTFLEHHGGPGVQHIAVASSDVLRTL RKMARSAMGGFDFLPPLPKY YEGVRRLAGD	
SEQ ID NO: 43	QIQTYLEHNEGAGLQHLALMSEDI FRTLREMRKRSSIGGDFDMPSPPTTY YQN LKRVGD	
SEQ ID NO: 42	QIQTYLEHNEGAGVQHIALVSEDI FRTLREMRKRSC LGGFEFMPSPPTTY YKN LKNRVGD	
SEQ ID NO: 36	QIETYLEHNEGAGVQHIALVTHDI FTTLREMRKRSLGGFEFMPSPPTTY YAN LHNRAAD	
SEQ ID NO: 38	QIQTFLEHHGGSGVQHIAVASSDVLRTLREMRARSAMGGFDFLPPLPKY YEGVRR IAGD	
SEQ ID NO: 32	QIQTYLEHNEGPGVQHIALVSEDI FNTLREMRKRSGVGGFEFMPSPPLTY YKN LKNRAGD	360



RECEIVED  
NOV 19 2003  
TECH CENTER 1600/2900

FIGURE 2C

SEQ ID NO: 41	VLSEAQIKECQELGVLDVDRDDQGVLLQIFTKPVGDRPTLFLEMIQIRIGCMKDERGEEYQ	420
SEQ ID NO: 43	VLSDDDQIKECCEELGILVDRDDQGVLLQIFTKPLGDRPTIFIEIIQIRVGCMMKDEEGKAYQ	
SEQ ID NO: 42	VLSEDIKQCEEDLGILVDRDDQGVLLQIFTKPVGDRPTLFIEIIQIRVGCMLKDDAGQMYQ	
SEQ ID NO: 36	VLTVDDQIKQCEELGILVDRDDQGVLLQIFTKPVGDRPTIFIEIIQIRVGCMLKDDAGQMYQ	
SEQ ID NO: 38	VLSEAQIKECQELGVLDVDRDDQGVLLQIFTKPVGDRPTLFLEMIQIRIGCMKDERGEEYQ	
SEQ ID NO: 32	VLRDEQIEECEEKLGILVDRDDQGVLLQIFTKPVGDRPTLFIEIIQIRVGCMLKDEQGLYQ	361

SEQ ID NO: 41	KGCGGFGKGNFSELFKSIEDYEKSLEAKQSAAVQG-S	458
SEQ ID NO: 43	SGCGGFGKGNFSELFKSIEEYEKTLAKQLVG----	
SEQ ID NO: 42	KGCGGFGKGNFSELFKSIEEYEKTLAKQITGSA-AA	
SEQ ID NO: 36	KGACGFGKGNFSELFKSIEEYEKTLAKR-----TA.	
SEQ ID NO: 38	KGCGGFGKGNFSELFKSIEDYEKSLEAKQSAAVQGS.	
SEQ ID NO: 32	KSGCGGFGKGNFSELFKSIEEYEKMLEAKQVTETASA.	421